

Notice of Allowability

Application No.

10/607,973

Examiner

Richard Edgar

Applicant(s)

JUNG ET AL.

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed under 37 CFR 1.111 on 23 November 2004.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☒ The drawings filed on 23 November 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Response to Arguments

Applicant's argument, see page 10, lines 7-10, filed 23 November 2004, with respect to the claims have been fully considered and are persuasive. The claim rejections under 35 U.S.C. § 102(b) have been withdrawn.

Newly Cited Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. United States Patent Application Publication No. 2002/0034443 A1 discloses an axial flow fan for a microwave oven having 5 or more blades circumferentially arranged on a periphery of the fan hub, wherein the blades each have a sweep angle (α). Since the application is being allowed coincident with the citation of a newly found reference by the examiner, wherein the newly found reference is very close to the claims, a reasons for allowance is included below (MPEP § 1302.14).

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

United States Patent Application Publication No. 2002/0034443 A1 teaches an axial flow fan for a microwave having 5 or more blades wherein the blades have a variable sweep angle with a maximum value below 40 degrees. The specific blade shape of the publication reduces noise as compared with conventional blade shapes.

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The instant claims comprise a fan that circulates cool air in a refrigerator, wherein 7 blades each have a sweep angle between 50 and 65 degrees.

One having ordinary skill in the art of fans appreciates the importance of knowing the density of a fluid when designing fans. The temperature of the fluid affects the density of the fluid, which alters the optimum shape of the blade acting on said fluid. One having ordinary skill in the art would not substitute a microwave fan for a fan used to circulate cool air in a refrigerator, if minimization of noise was desired. Clearly, as taught in at least Figs. 6 and 7 of the instant application, the minimization of fan noise in a refrigerator is desired, and occurs with 7 blades having a sweep angle between 50 and 65 degrees. Furthermore, the publication does not suggest altering the fan blade design for use in a refrigerator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Edgar whose telephone number is (571) 272-4816. The examiner can normally be reached on Monday thru Friday, 8:00 am until 4:00 pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Edgar
Examiner
Art Unit 3745

RE



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

2/11/05